# Reclaimed Water — a Valuable Resource



**Broward Water Resources Task Force** 

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THINK REUSE &







#### What is Reclaimed Water?

- Water used more than once
- Treatment levels to match uses
  - Irrigation of residential lots, golf courses and other green space
  - Groundwater recharge
  - Industrial Use
  - Environmental Enhancement
  - Saltwater intrusion barrier



### What Can Purple Do For You?

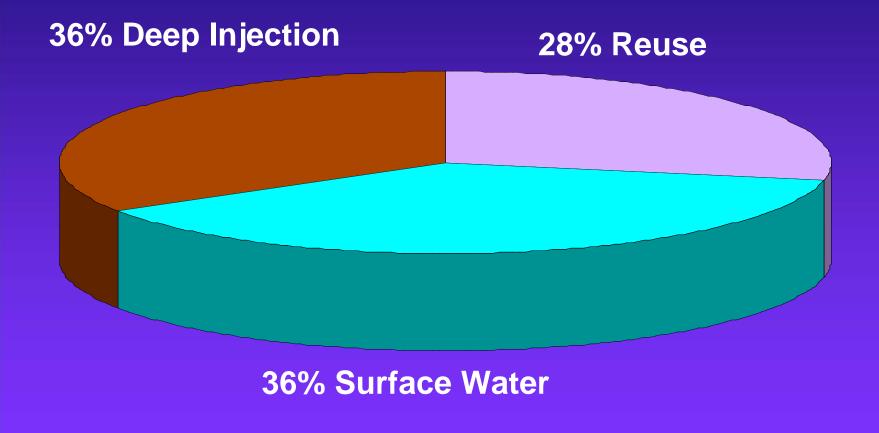
- Wastewater Management
- Water Resources
  - Recharge
  - Conservation
- Growth Demand
- Drought
- Environmental Enhancement







# 2006 Discharge Method (MGD)



**Total Flow: 824 MGD** 

### One Size Doesn't Fit All





















### Pompano Beach

- Pulls water from Broward County ocean outfall pipe
- 7.5 MGD capacity
- Irrigation of residential lots, golf course and park



## Palm Beach County Southern Region

- Serves western Delray Beach/Boynton Beach
- Mandatory Reuse Zone
- Irrigation of 3,325 residential lots, 4 golf courses, and 2 parks
- 150 acres of created wetlands
  - Green Cay & Wakodahatchee





### **Collier County Utilities**

- **13 MGD reuse in 2006**
- Irrigation of 1,330 residential lots, 20 golf courses, 6 parks, 1 school
- 5,400 acres served
- 140+ large customers on waiting lists







### **East Central Regional**

- West Palm Beach wetlands based reuse project (10 MGD)
- Power plant cooling water (22 MGD)
- Green space and golf course irrigation







### **Martin County Utilities**

- Reused 4 MGD in 2006
- Irrigation for 800 residential lots and 7 golf courses
- 0.5 MGD Aquifer recharge
- 925 acres served



## Orlando/Orange County Conserv II

- Joint venture
- **31 MGD reuse in 2006**
- Irrigation of 2,700 residential lots, 3 golf courses, and 8,000 acres of citrus
- Aquifer recharge



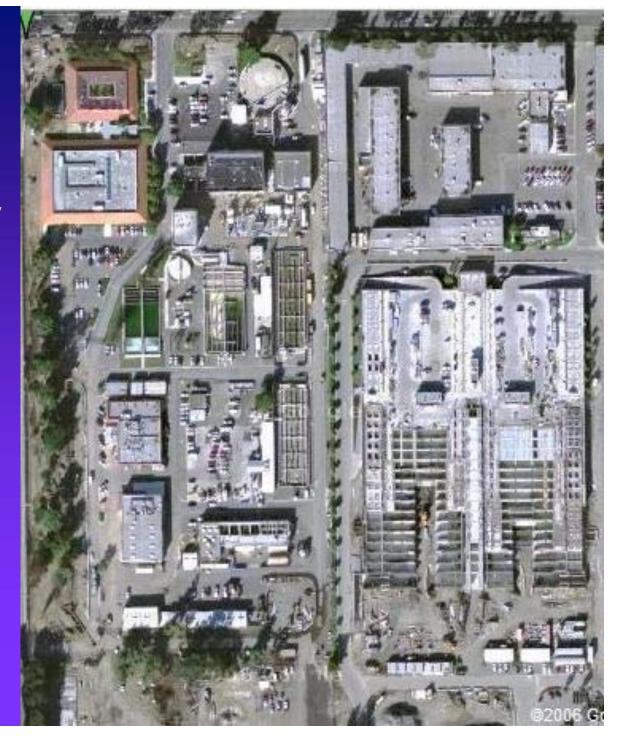




#### **Southern California Water Sources**



Orange County Groundwater Replenishment System

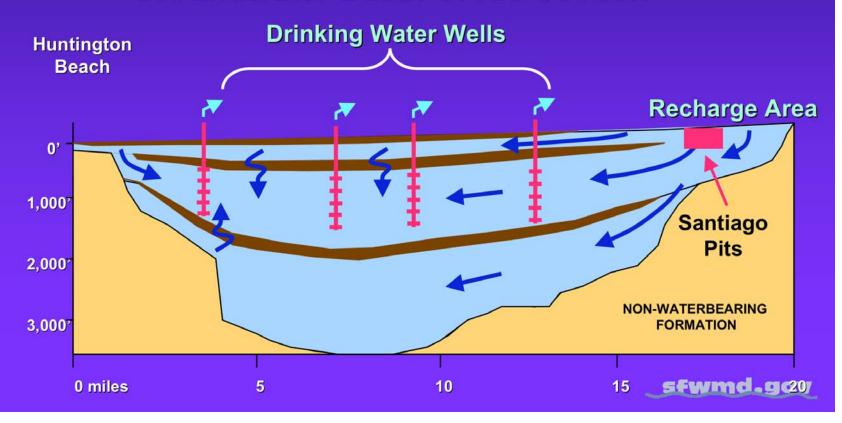


### Orange County Groundwater Replenishment System

#### **OCWD Functions:**

- Protect Water Quality
- Saltwater Intrusion Barrier
- Replenish Basin

#### **Groundwater Basin Cross Section**



#### Groundwater Replenishment System **Advanced Water Treatment**

**Microfiltration** (MF)

Reverse **Osmosis** (RO)

**Ultraviolet Light with**  $H_2O_2$ 





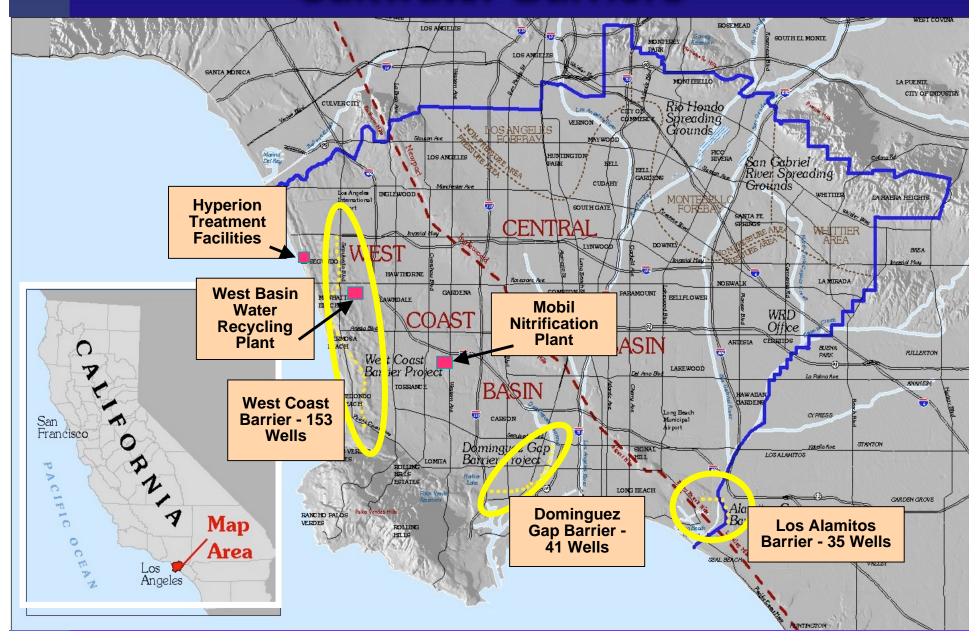
**Barrier** 

Recharge **Basins** 

### **West Basin Water Recycling Facility**



### West Basin California Facilities and Saltwater Barriers



### West Basin Designer Recycled Water

1. Tertiary: Irrigation

2. Amended Tertiary: Sports Turf Irrigation

3. Nitrified: Cooling Tower

4. Softened RO: Groundwater Injection

**5.** Single RO: Low-pressure boiler feed

(oil refineries)

6. Double RO: High-pressure boiler feed

(oil refineries)

## "If water is life...water conservation and reuse must be our way of life."



Use it Again, South Florida!